

## 26S Proteasome (Human)

Cat. # PS026

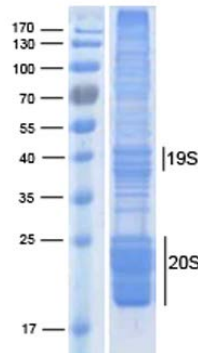
### Background:

The 26S proteasome is a large multi-protein complex, which plays a fundamental role in cellular homeostasis by controlling degradation of key proteins that are involved in apoptosis, cell cycle and signal transduction. The 26S proteasome is responsible for cell quality control by eliminating misfolded proteins from the cytosol and endoplasmic reticulum. With its diverse functions, the proteasome is an important target for drug development, particularly in cancer and neurodegeneration. The 26S proteasome is composed of the 20S catalytic core (core particle, CP), capped at one or both ends by 19S lids (regulatory particles, RP), which are responsible for deubiquitylation, unfolding and direction of proteins to the catalytic sites within the CP. After the addition of polyubiquitin chains to the protein, the substrate is directed into the catalytic core and most of the ubiquitin molecules are recycled.

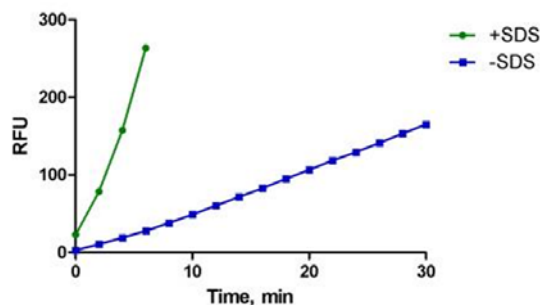
This purified 26S proteasome preparation can be used *in vitro* for the degradation of peptide substrates and polyubiquitinated proteins and screening for novel inhibitors.

### Product Information

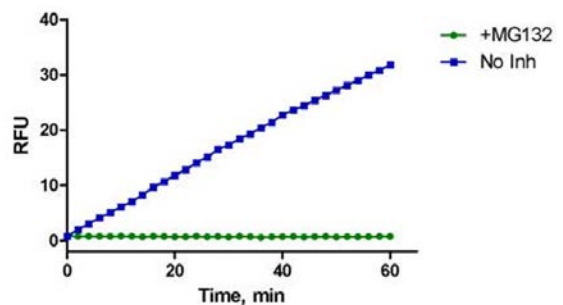
<b>Quantity:</b>	25µg, 50µg, 0.5mg/ml
<b>Buffer:</b>	20 mM Tris-HCl pH 7.2, 10% Glycerol, 150 mM KCl, 1 mM β-mercaptoethanol.
<b>Source:</b>	Human red blood cells
<b>Storage:</b>	-80°C. Thaw the vial on ice. Avoid repeated freeze/thaw cycles



26S was purified from human blood cells by DEAE chromatography follow by the ammonium sulfate precipitation (60%), Mono Q and Resource Q chromatography. Purified complex was resolved on 10% SDS polyacrylamide gel and stained with Coomassie blue.



The chymotrypsin-like activity of the 26S proteasome (45µg/ml) was measured using 100µM Suc-LLVY-AMC in 20 mM HEPES, pH 7.5, 0.5 mM EDTA, 0.05% Triton X, plus or minus 0.035% SDS



The chymotrypsin-like activity of the 26S proteasome (18 µg/ml) was measured using 100µM Suc-LLVY-AMC in 20 mM HEPES, pH 7.5, 0.5 mM EDTA, 0.05% Triton X, plus or minus 0.5 mM MG132 (Cat. # S19710)

### References

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